

## ABSTRACT OF THE DISCLOSURE

A speech data mining system for use in generating a rich transcription having utility in call center management includes a speech differentiation module differentiating between speech of interacting speakers, and a speech recognition module improving automatic recognition of speech of one speaker based on interaction with another speaker employed as a reference speaker. A transcript generation module generates a rich transcript based on recognized speech of the speakers. Focused, interactive language models improve recognition of a customer on a low quality channel using context extracted from speech of a call center operator on a high quality channel with a speech model adapted to the operator. Mined speech data includes number of interaction turns, customer frustration phrases, operator polity, interruptions, and/or contexts extracted from speech recognition results, such as topics, complaints, solutions, and resolutions. Mined speech data is useful in call center and/or product or service quality management.